

**ARTHROSCOPIC IMPEDANCE PROBE
TO DETECT CARTILAGE DEGENERATION**

SPONSORSHIP INFORMATION

5 This invention was made with government support under Grant No. AR 42285
awarded by the National Institutes of Health. The government has certain rights in the
invention.

PRIORITY INFORMATION

 This application is a divisional application of Ser. No. 10/324,717 filed
10 December 19, 2002 which is a divisional application of Ser. No. 09/776,254 filed
February 2, 2001, which claims priority from provisional application Ser. No.
60/179,820 filed February 2, 2000.

BACKGROUND OF THE INVENTION

 The invention relates to the field of non-destructive arthroscopic diagnostic
15 probes, and in particular to non-destructive arthroscopic diagnostic probes for detecting
degeneration of articular cartilage utilizing impedance measurements.

Articular Cartilage

 The function of organs in the human body are a direct consequence of their inherent
structure. The function of an organ as a whole is more than the sum total of its
20 individual constituents. Articular cartilage (AC) is a rich and illustrative example. An
understanding of the composition and physical properties of AC are essential to
diagnose a disease with any given device to aid in patient care. AC is a dynamic, living
tissue that responds to stimuli in its environment (i.e. external loading, fluid flow,